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# COUNTY INDEX TO MINERALS OF CALIFORNIA

An Index to the Mineral Localities listed in Bulletin 173 of the California

Division of Mines

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The 1956 edition of <u>Minerals of California</u> (Bulletin 173) is a catalog of mineral species and their important occurrences within the state.

Arranged as it is, in alphabetical order, any mineral in the Fulletin is easily found.

However, the first question of many persons interested in mineralogy, and especially those residing in California, concerns the minerals that are found in a particular part of the state. Also, interest is added to the study of mineralogy when it is shown that many species are found within one county.

To answer the questions about the minerals found in a specific area, this <u>County Index to Minerals of California</u> has been compiled. It was prapared from <u>Minerals of California</u> (Bulletin 173) and tabulates by counties the occurrences listed in that publication. Also indicated are the localities of the species first discovered in California and the date of their first published description.

The County Index lists 2838 localities for the 523 mineral species known to occur in California. By use of the index, along with Bulletin 173, the descriptions of mineral occurrences for any part of the state can quickly be found.

The assistance of Mrs. Gayle De Martin in the preparation of this index is gratefully acknowledged.

Donald O. Emerson

Department of Geological Sciences
University of California at Davis
Davis, California
April 1, 1958

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### .. LA EDA CCITITY

Alunogen Kaolinite

Amphiboles Kronnkite

Actinolite Lawsonite

Glaucophane Maghemite

Analcite Magnesite

Anauxite Melanterite

Aragonite Natrolite

Barite Pisanite

Bementite Psilomelane

\*Boothite, 1903 Pyrite

Calcite Pyrolusite

Chalcanthite Pyrophyllite

Chalcopyrite Pyroxenes

Chlorites Enstatite

Penninite Quartz

Chromite Rhodochrosite

Copiapite Rhodonite

Copper Stibnite

Epsomite Talc

Galena Yivianite

Gold Wollastonite

Halotrichite Zaratite

Hydromagnesite Zircon

Incsite

<sup>\*</sup> Species first discovered in a county of California are marked by an asterisk and followed by the date of the first published description.



# ALPINE COUNTY

Andalusite Potash Alum

Argentite Proustite

Arsenolite Pyrargyrite

Arsenopyrite Pyrite

Barite Pyrrhotite

Calcite Quartz

Chalcanthite Realgar

Chalcocite Rhodochrosite

Chalcopyrite Romerite

Chloropal Rutile

Enargite Scheelite

Famatinite Silver

Galena Sphalerite

Garnet Stephanite

Halite Stibnite

Halotrichite Stromeyerite

Iddingsite Sulphur

Ilmenite Tenorite

Lazulite Tetrahedrite

Melanterite Tourmaline

Polybasite Wolframite

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## L.D.R CCULTY

Amphiboles

Malachite

Tremolite

Marcasite

Anauxite

Melanterite

Ankerite

Mendozite

Apatite

Molybdenite

Arsenopyrite

Psilomelane

Axinite

Pyrophyllite

Cassiterite

Pyrrhotite

Chalcopyrite

Quartz

Chlorites

Chalcedony

Clinochlore

Rhodochrosite

Penninite

Rhodonite

Chromite

Rutile

Cooper

Scheelite

Diamond

Serpentine

Dolomite

Sphalerite

Epsomite

Strengite

Galena

Talc

Gold

Tetrahedrite

Graphite

Wollastonite

\*Ionite, 1878

Zircen

Kaolinite

Loellingite

# BUTTE COUNTY

Andalusite Psilomelane

Antimony

Quartz

Axinite indent > Chalcedony

Darite

Rhodonite

Bournonite

Rutile

Cassiterite Spinel

Chlorites Talc

Prochlorite Tellurium

Chromite

Topaz

Chrysoberyl Vesuvianite

Corundun

Vivianite

Epidote

Zircon

Galena

Garnet

Glauconite

Gold

Gypsum

Iridosmine

Iron

Lead

Magnetite

# C. T. VEALS COUNTY

Allanite Coloradoite Malachite

Altaite Columbite Marcasite

lunite Copper Magarite

Amphiboles Coquimbite Mariposite

Hornblende Covellite Melonite, 1967

Glaucophane Cuprite Molybdenite

Ankerite Diaspore Nagyagite

Araconite Dolomite Niccolite

Arsenopyrite Emmonsite Opal

Azurite Epidote Petzite

Barite Erythrite Potash Alun

Bementite Eucairite Psilomelane

Boothite Feldspars Pyrite

Bornite Albite Pyrolusite

Brochantite Orthoclase Pyromorphite

\*Calaverite, 1968 Galena Pyrrhotite

Calcite Garnet quartz

Cerargyrite Gold Chalcedony

Chalcanthite Graphite Rhodochrosite

Chalcocite Gypsum Rhodonite

Chalconyrite Hessite Scheelite

Chlorites Jamesonite Serpentine

Penninite Kaolinite Siderite

Chromite Magnetite Silver

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# CALAVERAS COULTY (Cont.)

Smaltite

Sphalerite

Stibnite

Sylvani te

Talc

Tellurium

Tenorite

Tetradymite

Tetrahedrite

Tourmaline

Uraconite

Uraninite

Vesuvianite

Vivianite

Zircon



# COLUSA COUNTY

Alunite Aragonite Chalcocite Chalcopyrite Chromite Cinnabar Copper Cuprite Datolite Epidote Gold Argentian Hydromagnesite Marcasite Metacinnabar Pectolite Prehnite Psilomelane Pyrite Pyrolusite Stibnite Sulphur Tenorite

Thomsonite



in italis Lawsonita

Actinolite Marcisite

-nthonivillite 'elanterite

Tremolite Metacinnahar

Crossite

Potash illum

nauxite Psilomelane

atite

Pyrolucite

Parite

Pyroxenes

Bornite Enstatite

Chalcopyrite Diallage

Chlorites

Diopside

Prochlorite Römerite

Chromite

Rutile

Cinnabar

Siderotil

Coniapite Sphene

Epschite Stibnite

Feldsnams Zaratite

Albite

Fluorite

Halotrichite

### Dar Kan - Thunk

Arsenopyrite

waruite

Bornite

Chalcocite

Chalcopyrite

Chlorites

Penninite

Chromite

Copner

Cuprite

Enargite

Ferrimolybdite

Garnet

Graphite

Iridosmine

Magnesite

Marcasite

Mercury

Monazite

Pyrolusite

Pyrchotite

Silver

Tenorite

Tetrahedrite

Troilite

Wollastonite

Zircon



# ET DOE TO COUTY

mphiboles

Feldshars

\*.oscoelite, 1.75

Hornblende

Crthoclase

Schenlite

.natase

Ferrimolybdite

Cerpentine

nkerite

Galena

Siderite

Antimony

Garnet

Sphalerite

Arsenopyrite

Garnierite

Sphene

Axinite

Gold

Stromeyerite

Azurite

Talc

Barite

Halotrichite

Hessite

Tenorite

Bismuth-Gold

Ilmenite

Topaz

Bornite

Iron

Tourmaline

Brookite

Ludwigite

Variscite

Calaverite

"lagnetite

Calcite

Mariposite

Vesuvianite

Chalcocite

Massicot

Wulfenite Zircon

Chalcopyrite

Molybdenite

Chlorites

Petzite

Clinochlore

Prehnite

Penninite

Pyrite

Chloropal

Pyrolusite

Chromite

Pyromorphite

Copper

Pyrophyllite

Coquimbite

Pyroxenes

Cunrite

Diopside

Enargite

Quartz

Epidote

Rhodonite



### BI ONE SITEMY

Apphibol's

Cuprite

Dionside

Hornblende

Suprotunestite

Hedenbergite

Tremclite

Diamond

...cmite-Aemirite

Barkevikite

Diaspore

Pyrihotite

/.nal.cite

Epidote

wartz

nauxite

Ferrimolybdite

Chalcedon!

andalusite

Galena

Rhadonite

'natite

Garnet

Tutile

Aradonite

Argentian

Scheelite

Ersenopyrite

Serpentine

Pervl

Gvosum

Cilver

Bindheimite

Hematite

Graphite

Schalerite

Pismuthinite

Hydromagnesite

Sphene

Bismutite

Ilvaite

Spinel

Bornite

Ludwigite

Tenorite

Brucite

Magnesite

Toosz

Calcite

Magnetite

Tourmaline

Chalcanthite

Molybdenite

Vermiculite

Chalcocite

Matrolite

Vesuvianite

Chalcopyrite

Opal

Nollastonite

Chlorites

Phlogopite

Zircon

Clinochlore

Potash Alum

Chromite

Psilomelane

Clinohumite

Pyroxenes



# OFFILE GOALULA

Chromite

Copper

Psilomelane

Talc

Volborthite

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### HU TO TO TITY

- atite

Vivi snite

Barite

Zircon

Bemontite

Bornite

Braunite

Chalcocite

Chalcopyrite

Chromite

Chrysocolla

Copper

Cu; rite

Epidote

Gold

Hematite

Iridosmine

Lawsonita

Magnesite

Malachite

Millerite

Medtocita

Poilonalane

Pyrolusite

Pyrrhotita

Rhodochrosite

Rhodonite

Scheelite

Spinel

Tin

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## PETER L PURTY

'nhydrite

Hematite

wollastonite

Argentite

Iron

ulfenite

Arsenopyrite

Jarosite

zurite

Tyanite

Barith

Manganite

Blodita

Marinosite

Calcite

Mirabilite

Cerussite

Muscovite

Chalcocite

Miter

Chalcopyrite

Psilomelane

Chrysocolla

Pyrolusite

Claudetite

Pyrophyllite

Copper

Realgar

Covellite

Sal Ammoniac

Cristobalite

Scorodite

Cuprite

Siderite

Dumortierite

Soda Witer

Epsomite

Sphalerite

Fayalite

Sphene

Galena

Sulphur

Garnet

Talc

Garnierite

Tetrahedrite

Glauberite

Thenardite

Graphite

Tourmaline

Gyrsum

Tridymite

Halloysite

Turquoise

### THYO KUTTY

Adamite	Bismuthinite	Covellite	Argentian
Alunite	Bismutite	Creedite	Greenockite
Alunogen	Borax	Cristopalite	Gypsum
Amphiboles	Bornite	Crocoite	Halloysite
Tremolite	Boulangerite	Cunrite	H⇒nksite
Analcite	Bournonite	Datolite	Hematite
Anglesite	Brochantite	Dawsonite	Hemimorphite
Anhydrite	Calcite	Dufrenoysite	Howlite
Annabergite	Caledonite	Embolite	Hydroboracite
Apatite	Cassiterite	Epidote	Hydromagnesite
Aragonite	Celestite	Epsomite	Hydrozincite
Argentite	Cerargyrite	Erythrite	Iddingsite
Arsenic	Cerussite	Famatinite	Ilsemannite
Arsenopyrite	Cervantite	Fayalite	"Inyoite, 1914
Atacamite	Chalcocite	Feldspars	Iron
Aurichalcite	Chalcopyrite	Microcline	Jamesonite
Autunite	Chloritoid	Orthoclase	Jarosite
Axinite	Chloropal	Fluorite	Kyanite
Azuri te	Chrysocolla	Galena	Laumontite
Bakerite	Cinnabar	Carnet	Lazulite
Barite	Clinozoisite	Sehlenite	Let Millito
Bassanite	*Colemanite, 1323	Ceocronite	Lepidolite
Beryl	Copper	Glauberite	Limonite
Bindheimite	Coquimbite	Goethite	Linarite
Bismuth	Coronadi te	Gold	Liroconite



# TIME COUNTY (Cont.)

		Sph lerite	Valentini te
Litharge	Priceite	·	
Loellingite	Prohertite	Sphene	Vanadinite
Magnesite	Pseudomalachite	Spinel	Vesuvianito
Magnetite	Psilomelane	Staurolite	Vivianite
Malachite	Pyroporphite	Stephanite	Willemite
Marcasite	Pyrophyllite	Sticconite	Wolframite
Massicot	Pyroxenes	Stibnite	Hollastonite
Metacinnabar	Clinoferrosilite	Stilbite	Wulfenite
Metastibnito	Diopside	Stilpnomelane	Zoisite
#Meyerhofferite, 1914	Pyrrhotite	Stolzite	
Mimetite	Quartz	Stromeyerite	
Minium	Chalcedony	Strontianite	
Molybdenite	Realgar	Sulphur	
Montmorillonite	Sal Ammoniac	Talc	
Matrolite	Scapolite	Tencrite	
Natron	Scheelite	Tetradymite	
Nepheline	Scorodite	Tetrahedrite	
Miter	Senarmontite	Thenardite	
Phlogopite	Sepiolite	Thermonatrite	
Phosgenite	Cerpentine	Torbernite	
Pickeringite	Siderite	Tourmaline	
Plumbogumnite	Sillimanite	Tridymite	
Plumbojarosite	Silver	Trona	
Potash Alum	Smaltite	Tungstite	
Powelli'e	Smithsonite	Turgite	
Prehnite	Scda Niter	Ulexite	

## . H.E. GOINTY

lunito	Chalconyrite	Ilmeni+e	or mertite, I'm.
mhibeles	Chloritoid	Inderite	fromotite
ctinclite	Chloropal	Iron	?silommlane
Tremoli+e	Carysocolla	Jamesonito	Pyrardyrite
n loite	Cinnabar	Nermosite	Dyroxones
ndelucite	Clinoptilolite	Kernite, 1927	Enstatite
ntimony	Seccinite	Lazulite	Tyrrhotite
ragonite	Colemanite	Lead	uartz
rgentite	Suprite	Lepidonelane	Chalcedony
rsenopyrite	Cuprotungstite	Litharge	Realger
autunite	Dolomite	Ludwigite	Chodenite
eximite	Dumortierite	Magnesite	Scapolite
zurite	Epidote	Magnetite	Scheelite
Parite	Feldspars	Marcasite	Ecorodito
enitoite	Orthoclase	Mariposite	Sermentine
Bismuthinite	Ferrimolybdite	Massicot	Sillinanite
Porax	Fluorite	Mimetite	Silver
Cornite	Galena	Minkum	Chithnonite
Cournonite	Garnet	Molybdenite	Shhalerite
Promymite	Cibbsite	Montmorillenite	Chrishe
Brookite	Graphite	Matrolite	: produmone
Calcite	Gummite	Miter	Stibconito
Cassiterite	Gynsum	Opal.	tihnite
Delandonite	Hematite	Orpiment	Culphur
Derargyrite	Hemimorphite	Phillipsite	Tenerite
Cervantite	Heulandi te	Piedmontite	Totraledrite
Chalcocite	Howlite	Fowellite	Thenardite

Iddingsite

Th:== >n:-

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Tino:loomite

Torternito

Tournalinh

Turrite

Uleri--

Volentining

'anadinite

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ollostonite

ulfenite

Zrisita

# HI R COULTY

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-tacami#e

Chromite

Epsomite

Gynsun

Magnesite

Mercury

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In: ynit

Glaucophane

el.nterite

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Richeckite

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Tschar igit

..r Penite

lotacinnolor

Ulaxi'e

ammilde.

Fillerita

Wollastonite

orax

\*chtroydite

Zoisite

Bornite

Morthurite

Malaccifo

Cral

" romite

Orginant

Cinna' ar

Poot lite

Conianite

Pirssonite

Copper

Posophyte, 1 77

Cordiorite

Potash Illum

Curtisite

Tailomelane

Dolomite

Pyrelusite

Ensomite

Pyroxenes

Feldsnins

Dionside

Anorti ite

Duante

Fluorite

Sassolite

Gay-Lussite

Cerpentine

Plauberite

Stibnite

Gold

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Palite

Templeite, 1 38

Hematito

Thermonatrite

Jarosi e

Tierannite

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ll-n'	Cole nit	Low stills	C: 1e
piiloles	Columbite	Lavsonite	713111111111111111111111111111111111111
Barbavilite	Cop est	Vagnesite	-ilwr
Crossite	Corcicaito	Magnetite	Oraltica
Glaucophane	Coruntum	Marcasite	1. ler'   a
a. loite	Dolomite	Carinosite	Spirenc
ndalusite	Epidote	Melanterite	tirnite
nnstergise	Epsemite	Tinium	Ctilbite
reply11ide	Erythrite	olybdemite	Talc
tinonite	Feldspars	Controrillonite	Tetruhedrite
. ntite	Albite	Natrolite	Thomsonite
Turi te	Labradorite	Cpal	Thorite
Bal orite	Flucrito	Pharmacolite	Toursline
enite	Galena	Diedmontite	Tridymite
Seidellite	Garnet	Potash wlum	Ulexits
Pismutite	Glauconite	Prehnite	Veatchite, 193
Pornite	Gold	Probertite	Vivianite
Calci*e	Graphite	Psilovelane	Tircon
Calcotite	Griffithite, 1917	Ptilolite	Icisite
Certaryrita	Gypsum	Tyrrhotite	
Chalcocite	Malotrichite	Quartz	
Nalcomyrite	Heulandite	Chalcedony	
Chlorites	Howlite	Realgar	
Clinochlore	Iddingsite	Ehodonite	
Chromite	Ilmorite	Roscoelite	
Chrysocolla	Iron	Sal Ammonitc	
Clinoacisite	Kyanite	Serpentine	



. 1t i e Barnet, mohil :les old ..ctinoli . rrentich Trepolite Tlueni'e andalusite lazulite -nglesite Lizurite Aradonite Linarije xinite Magnesite Azurite "agnetite Bismuthinite Molybdenite Bornite Phlogonite Calcite Piedmontite Cerussite Tyrolusite Chalcocite Fyrophyllite Chalcopyrite Chromite Diopside Chrysocolla Pyrrhotite Cobaltite Thodachrosite Columbite Thodonite Copper Ccheelite Dukanite Silver Enidate Sphilerite Feldsnars Talo Orthoclase Tourmaline Ferrimolybdite Turquoise

Jivichite

..olframite

Zaratite

Galena

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.lunoien

Dyrolusite

Amphibcles

Pyroxenss

..ct nolite

Jadeite

Meghrite

Tyrrhotite

Tremolite

.uartz

Glaucomhane

Chalcedony

.pcphyllite

Mutile

axinite

Scheelite

Calcite

Sphene

Chalcopyrite

Czaibelyite

Chromite

Wollastonite

Enidote

Z'rcon

Feldshars

Albite

Garnet

Graphite

Hydromagnesite

\*Lawsonite, 1895

Margarite

Muscovite

Prehnite

Psilomolane

Pumpellyite

lunite	Cuprite	Mercury	Silvon
. lunogen	Epidote	Molybdenite	Sphaleri*e
nda]usi÷e	Epsomite	Pitticite	Sulphur
Ankerite	Erythrite	Flatinum	Talo
rgentite	Feldspars	Proustite	Tellurium
rsenopyrite	Celsian	Pyrargyrite	Tenorite
·zurite	Ferrimclybdenite	Pyrite	Tetrahedrite
Bari <sup>+</sup> e	Galena	Pyrolusite	Witherite
Benentite	Garnet	Pyromorphite	
Bornite	Garnierite	Pyrophyllite	
Bromlite	Gersdorffite	Pyrrhotite	
Chalcocite	Gillespite	Quartz	
Chalcopyri'e	Goethite	Rhodochrosite	
Chleropal	Gold	Rhodonite	
Chromite	Gold Amalgam	Sanbornite, 1931	
Chrysocolla	Kobellite	Scheelite	
Cinnabar	Limonite	Scorodite	
Cobaltite	Magnesite	Serventine	
Copper	Malachite	Siderite	
Cordierite	-Mariposite, 1868	Gillimanite	

ndiloles

Iridium

zcīsi'e

.ctinolite

Jefferisite

Nephrite

Laumontite

Jrossite |

Lawsonite

Richechite

Magnesite

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ercury

lementile

Neotocite

Bornite

Platinum

Browsterine

Esilomelane

Chalcopyrite

Pyrolusite

Chromite

Pyroxenes

Chrysocolla

Jadeite

Cinnahar

Ehodochrosite

Clinozoisite

Rutile

Copper

Sphene

Cuprite

Tenorite

Edinatonite

Tetrchedrite

Epidote

Xonotlite

Garnet

Zaratite

Graphite

Zircon

Inesite

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### E D. J. J. JITY

Calcite

Chalcopyrite

Copper

Glauconite

Gypsum

Hydromagnosite

Jarosite

Psilomelane

Soda Witer

Sphalerite

Stibnite

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## CLOC WITY

azurite

Calcite

Chalcopyrite

Chloropal

Copper

Oristebalite

Currite

Feldspars

Labradorite

Iron

Matrollite

Niter

juartz

Chalcedony

tilbite

Tourmaline

ater-Ice

# Y. W. P. C. DITS

lunife	Calcite	Epidote	Lin rite
.mohiboles	Caledoni≐€	Foldsy ars	agnet te
Hornblende	Gerargyrite	Albita	Calachito
nalcite	Ceruscite	Permimolybdite	Marcasite
andalusite	Cervanti te	Fluorite	Massicot
inglesite	Chabazite	Galena	Mercury
Anhydrite	Chalcanthite	Gay-Lussite	Minium
patite	Chalcocite	Geocronite	Molybdenite
rgentite	Chalcopyrite	Gold	Opal
rsenopyrite	Chloropal	Argentian	Partzits, 1267
nugelite	Chrysocolla	Greenockite	Pectolite
urichalcite	Cinnabar	Gypsum	Potash Alum
.xinite	Cobaltite	Halloysite	Powellite
Azurite	Copner	Hanksite	Proustite
Barite	Corundum	Hematite	Pyrargyrite
Bismuth	Jovellite	Hessite	Pyromorphite
Bismuthinite	Cristobalite	Ilmenite	Pyrcphyllite
Bismuti†e	Cuprite	Jarosite	Pyrrhotite
Bornite	Diasnore	Kermesite	Ruartz
Boulangerite	Dioptase	Lazulite	Rutile
Grannerite	Enholite	Lazurite	Scheelite

.corzali'e

Siderite

Silver

Sph.lerite

Sphene

Stephanite

Stibnite

Stroneverite

Sulphur

Tetrahedrita

Tonaz

Tourmaline

Tridyrite

Trona

Vanadinita

Vesuvianite

Nollasterite

Woodhouseite, 1937

Wulfenite

Nurtzite

Zircon

Zoisite

E ....

### (Y)

imphibol s lkgnesit

l'enhrite Malachite

..ratite "Metacinnaba"

..ragonite Molybdenite

rsenic Piedmontite

Arsenopyrite Pisanite

Axinite Psilomelane

azurite Quartz

Calcite Chalcedony

Cerussite Rhodonite

Chlorités Serpentine

Penninite Sminel

Chromite Stibnite

Cirnabar Sulrhur

Olinopoisine Zaratite

Feldspars

Orthoclase

Galens

Carnet

Glauconite

Graphite

| Iddingsite, 1893



## HAP: CCUMMY

Aragotite

Fibroferrite

Proustite

Argentite

Galena

Psilomelane

Arsenopyrite

Gypsum

Pyrargyrite

Barite

Hohmannite

Pyrolusite

Potryogen

Hydromagnesite

Quartz

Calomel

Jamesonite

Chalcedony

Cassiterite

Magnesio-Copiapite

\*Redingtonite, 1890

Cerargyrite

\*Knoxvillite, 1890

Serpentine

Chalcocite

Magnesite

Silver

Chalcopyrite

Marcasite

Smaltite

Chromite

Melanterite

Stibnite

Cinnabar

Mendozite

Voltaite

Copiapite

Mercury

Wollastonite

Copper

\*Metacinnabar, 1870

Coquimbite

Millerite

Crednerite

Mirabilite

Cuprite

Morenosite

Curtisite

\*Napalite, 1888

Deweylite

Opa1

Epsomite

Posepnyte

Erythrite

Potash Alum

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## HEVEDA COUNTY

	Chrysocolla		
Altaite	Cinnabar	Naumannite	Zircon
Alunogen	Cobaltite	Petzite	
Anotase	Copper	Psilomelane	
Andalusite	Covellite	Pyrargyrite	
Ankerite	Cristobalite	Pyrite	
Argentite	Cuprite	Pyromorphite	
Arsenic	Diamond	Pyroxenes	
Arsenopyrite	Epidote	Enstatite	
Azurite	Ferrimolybdenite	Diallace	
Barite	Galena	Pyrrhotite	
Bismuth	Garnet	Rhodonite	
Bornite	Gibbsite	Scapolite	
Calcite	Gold	Schellite	
Chabazite go	Amalgam	Serpentine	
Chalcanthite	Graphite	Smaltite	
Chalcocite	Gypsum	Sphalerite	
Chalcopyrite	Hessite	Stephanite	
Chlorites	Magnesite	Stibnite	
Penninite	Magnetite	Tetradymite	
Chloropal	Marcasite	Tetrahedrite	
Chromite	Marinosite	Tourmaline	

Wollastonite

\*Chromrutile, 1928 Molybdenite



## ORNIGE COULTY

Alunite

Anhydrite

Aragonite

\*Arcanite, 1908

Argentite

Barite

Calomel

Cassiterite

Cerussite

Galena

Garnet

Gypsum

Kaolinite

Melanterite

Mercury

Metacinnabar

Muscovite

Piedmontite

Pyrrhotite

Sphalerite

Stibnite

Tiemannite

Tourmaline



Alunogen

Garnet

Scheelite

Amphiboles

Gold

Serrentine

Tremolite

Argentian

Silver

Aradonite

Hausmannite

Schalerite

Argentite

Hematite

Spinel

Arsenopyrite

Iridosmine

Stibnite

Axinite

Kaolinite

Tetrahedrite

Azurite

Lead

Tourmaline

Parite

Limonite

Yesuvianite

Cassiterite

Magnesite

Tircen

Cerargyrite

Chalcanthite

Magnetite

Malachite

Chalcocite

Chalcopyrite

Marinosite

Chlorites

Villerite

Clinechlore

Molyhdenite

Potash Alum

Penninite

Psilomelane

Chloropal

Pyrargyrite

Chromite

Pyrolusite

Cebaltite

Pyroxenes

Copper

Diopside

Coquimbite

Quartz

Cuprite

Chalcedeny

Feldspars

Albite

Rhodochrosite

Galena

Rhodonite

Rutile

## PULL OLUTY

Ser entine Amphiboles Albite

Siderite Hornblende Garnet

Filver Tremolite Hausmannite

Sphalerite Analcite Hematite

Anauxite Heulandite Sphene

Stilbite Anglesite Ilmenite

Strontianito Ankerite Laumontite

Tetrahedri e Anatite Magnetite

Thomsonite Apophyllite Malachite

Tourmaline Azurite Margarite

Barite Millerite Tridymite

Vesuvianite Bornite Molybdenite

Wulfenite Braunite Natrolite

Phillipsite

Zircon

Zoisite Chabazite Piedmontite

Chalcocite Platinum

Chalcopyrite Prehnite

Chromite Psilomelane

Brochantite

Enargite

Chrysocolla Pyrolusite

Copper Pyrophyllite

Corundum Pyroxenes

Covellite Hypersthene

Cristobalite Pyr-hotite

Cubanite Quartz

Cupri te Chalcedony

Rhodonite

Epidote Schoelite

Feldspars Scolecite

### EINELSI E JOILIA

fillite	Ecennit <sup>-</sup>	Cumronlumbite	Gyr dun
Allarite	Bornite	Custerite	Hematite
Amarontite	Brucits	Tyrtolite	Hydromach.site
Amblygonite	Pultfonteinite	Dankurite	Hydrotroilite
imphibales	Calcife	Datclite	Maclinite
Anthor/yllit-	Cassiterite	Deweylite	Eyanite
Hornblende	Centrallasite	Dumortistita	Laumontite
Tremolite	Corussite	+Ellestadite, 1937	Lechatelizrite
.natase	Chalcocite	Epidote	Lepidolite
.ndalusite	Chalconymite	Epistilbite	Loellingite
.nglesite	Chlorites	Feldspars	Ludwigite
Anhydrite	Clinochlore	Microcline	Maghemite
ratite	Chloropal	Ferguschite	Magnesicferrite
apophyllite	Chendredite	Fluorite	Magnesite
ragonite	Chryscoclla	Forsterite	Magnetite
Argentite	Clinozoisite	TFoshagite, 1920	Marcasite
Arsenopyrite	Colemanite	Galena	Maribosite
axinite	Columbite	Garnet	Therminite, 1921
Azurite	Comiabite	Gehlenife	Microlite
Barite	Corter	Geikieli o	Volybdenite
Bementite	Cordierito	Cibbsite	Monazire
Beryl	Corundum	Sosthite	Vonticellite
Piotite	Cristolalite	Gonnardite	Tentmorillenite
Pismuth	Criccite	Graphite	Masonite
Sismuthinite	Cuprife	Greencokita	Meotocite

## IVERSI E COUNTY (Cont.)

Niter Sepiolite Vermiculite

Ckenite Serendibite Vesuvitnite

Periclase Serpentine Vonscnite, 1920

Perovskite Siderite #Willeite, 1914

Phillipsite Smithsonite Collestonite

Phlogopite Soda Miter Mulfenite

Piedmontite Sphalerite Wanthophyllite

\*Plazolite, 1920 Sphene Kenotime

Prehnite Spinel Monotlite

Psilonelane Spodumene Yttrocrasite

Ptilolite Spurrite Zircon

Pyrite Stibnite Zoisite

Tyrolusite Stilbite

Pyromorphite Stromeyerite

Pyroxenes Strontianite

Diallage Talc

Diopside Tetrahedrite

Pyrrhotite Thaumasite

Quartz Thorite

Rhodonite Thorogummite

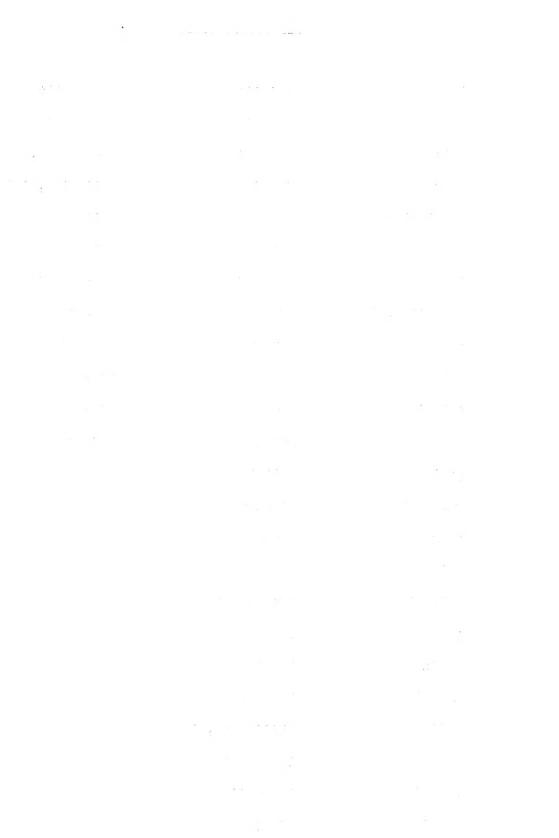
Rutile \*Tilleyite, 1933

Samarskite Tobermorite

Scarclite Tourmaline

Scawtite Ulexite

Scheelite Vanadinite



### SACTAL IN DUTTY

Chromite

Galena

Quartz

Sphalerite

Zircon

10-10-10-0

74...

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amohikoles Hydrom mesite Crinel

Actinolite Tlmenite tiliconite

Stirni'e Barkevikite Jarosite

Blaucorhane Joaquinite, 1909 Turquoise

Valentirite Koninckite malcite

Lawsonite Vivianite

"agnesicferrite Voltaite Aradonite

Zoratite

Magnesite

Parite Velantelite

Perentite Mercury

Irtinite

Benitoite, 1907 Metacinnabar

Celestite Natrolite

Chalcocite Mentunite

Chalcopyrite Mesquehonite

Chlorites -Pestolite

Penninite Perovskita

Chromite Tsilomelane

Chrysocolla Fumpellyite

Cinnahar Pyrolusite

Diadochite Pyroxenes

Ensomite Acmite-Aegirite

Feldspars Jadeite

albite Quartz

Garnet Chalcedony

Garnierite Rutile

Gypsum Serpentine

* *	America	Chalcop, fits	ert ool se
llanita	aPakeline, 1903	Chloren Upreite	er to lynamic
11 optione	าท่าง	Chonimodite	Fibroferrito
lunite	Pashani'o	Chranite	Fluorita
-hlw/orit	Postnaesito	Theysocolla	nzotezite
hibales	ayloonime	Cinnerar	Talera
ctinoli**	Petafite	Clincisite	Carnet
nthrophyllite	Bindheimit€	Colemanife	Gry-Lussite
Turmminotonite	Bismuthinite	Cooleite	Clauborite
Hornhlande	Rismutite	Copiapite	Graphite
Tramolite	Roracite	Coquimbite	Creencckite
notose	3orax	Corundum	Günhelite
nilesite	Bornite	Cuprite	Gypeun
nhy zite	Brochantite	Cyrtoline	Malite
nkerito	Brucite	Darapskite	Helotrichito
instite	Burkeite, 135	Datolite	Hanksite, 1994
mṛ'hthitalite	Galciovolberthite	Descloizite	Hematite
m gonine	Calcite	Deweylite	Hemimorphite
mgentite	Caledonite	Dioptase	Howlite
rsemi_siderite	Casciterite	Dolomite	Hydron: pnesite
rsenclita	Celestite	Envolite	Hrcrotroilite
rsenogyrite	Cerargyrite	Epidote	Mydiorincite
ntacemine	Cerussits	Epsomite	Iddinasite
utunito	Cervantite	Euxenite	Ilmenite
<i>i</i> .xinite	Chalcocite	Feldspars	Iron



## ( or, t. )

Jarosite	iwscovite	Realgar	Talc
Caolinite	Wahoolide	Phodockrosite	Tenorito
Provisite, 1 01	Matron	inodonite	letrahedrith
yanite	Miter	: one ite	Thaum: site
Lumontite	Morthupite, 1895	Lutile	Thenardite
Lazulite	Olivine	(Saharolide, 194	Tincalconite, 1 7
Lazurite	Cpal	Schairerite, 1031	Tourmaline
Legicolite	Parisite	Scheolite	Triplite
Linarite	Pickeringite	*Searlesith, 1714	Trona
Litharge	Fiedmontite	Serpentine	Turquoise
l'agnesite	*Dirssonite, 1906	"'llimanite	Tychite, 1905
".gnetite	Polybasite	Silver	Ulexite
Arcasite	Potash Alum	Smithsonite	Urininite
"uscicot	Priceite	Soda Miter	Manadinite
elanterife	Proustite	Sphalerite	Vauquelinite
'andozite	Psilomelane	Sphene	Vesuvianite
letavoltine	Pyrargyrite	Spinel	Voltaite
l'iargyrite	Pyrolusite	Ctephanite	Julframite
imotite	.yromorphite	Stibiconite	ulfenite
'iniun	Pyrophyllite	Stibnite	Zircon
inclilite	Pyrostilpnite	Stilkife	Zoisite
l'olybienite	Pyroxenos	Stroneyerite	
icnazite	Diopside	Otrontionite	
Conticellite	uortz	Sulphohalite, 1799	

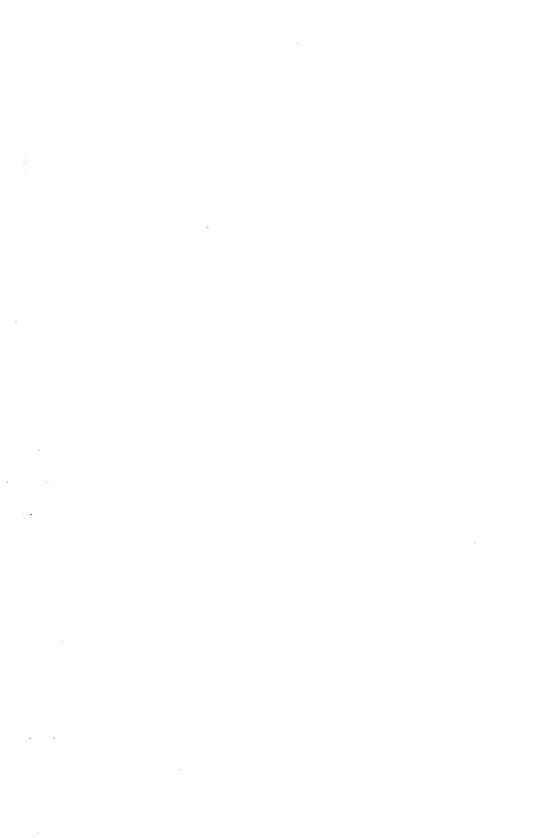
Contmorillonite Chalcedony Sulphur



## C... F. EG. CULTY

labandite	Chalcocite	Lamulite	Durpurite
. llanite	Chalcopyrite	Lepidolito	Pyrite
ablygonite	Columbite	Lithiophilite	Pyrochlore
mphilolos	Cookeite	Loellingsite	Pyrophyllite
Tremolite	Comundum	Ludlamite	Pyroxenes
Crossite	Dumortierite	Malachite	Hypersti ene
laucophane	Eridote	Manganite	chite-leginite
.n' lusite	Erythrite	Farcasite	Cyr:hotite
putite	Feldspars	Mariposite	uartz
ragonite	Albite	Metastrongite	Chalcedony
rsenopyrite	Fertimolybdite	Microlite	Rhodonite
xinite	Fluorite	Molybdenite	Rutile
Azurite	Galena	Fonazite	Salmonsite, 1912
Davenite	Garnet .	Montmorillonite	Scheelite
Bertrandite	Glauconite	Neronosite	Scorodite
Deryl	Graphite	Muscovite	Picklerite, 1912
Beyerite	Hall <b>ø</b> ysite	Pentlandite	Siderite
Biotite	Helvite	Petalite	Sillimanite
Rismite	Heulandite	Petzite	Sphalerite
Bismuth	Hursaulite	Phenaltite	Schene
Bismuthinite	"Palaite, 1912	Diedmontite	Spinel
Rismutite	Hydromagnesite	Pollucite	Spodumene
Calcite	Jezeki te	Potash Alun	Stewartite, 1913
Cassiterite	Kyanite	Prehnite	Stibiotantalite
Celestite	Launontite	Psilomelane	Stilkite
Cerargyrite	Lawsonite	Pucherite	Strengite

(Cont. next pg.)



# 3. 11 [ FOL 2 [ 177], (Con. )

Strontiunite

Tenorite

Tephroite

Topaz

Tour aline

Tridymite

Triphylite

Triplite

Termiculite

Vesuvienite

Violarite

Marrolf te

Wollastonite

Zinnwaldite

Zircon

Zoisite

Apoj ylli e Shalcedony

drugorite dericatine

Taminalite

rucite ollastonita

Calcite Monotlite

Chromite

Curtisite

Datclite

cypsum

Gyrolite

Hydromagnes' =

Magnesite

Mercury

Pectolite

Pyroxenes

Enstablite

Diellage

Dionside

\_uartz

## FILL A MEL COMITY

2ementite

Gypsum

Hausmannile

Inesite

Psilomelane

Pyrolusite

Thorochrosite

\* 1 ....

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ed year

## THE THE STORY

All ane Magnesite Tridymite

.lunogen Mercury Turquoise

Darite Willerite Coratite

Tlödite Mrabilite Zircon

Tervantite Hatrolite

Chalcopyrite Neotocite

Chromite Prohnite

Cinnabar Psilomelane

Clinoptilolite Pyrolusite

Copper Pyrophyllite

Dubanite Pyroxenes

Epidote Jadeite

Erythiite luartz

Gypsum Chalcedony

Hausmannite Spinel

Hematite Stibiconite

Hydromagnesite Stibnite

Lawsonite Thenardite

nalcite

inprivillite

Calchel

`eladonite

Thromite

Cinnarar

Eglest onite

Galena

Hydromagnesite

Lawsonite

Margarite

Mercury

"entroydite

Pumrallyito

uartz

Chalcedony

Silver

Schalorite

Ephene

Vivianite

Tircon

Allanite

Amphiboles

Werhri to

Analcite

Apatite

Azuri te

Barite

Cassiterite

Chalcopyrite

Chromite

Cinnabar

Coccinite

Copper

Epsomite

Gilsonite

Gypsum

Hydromagnesite

Lawsonite

Magnesite

Opal

Pectolite

Potash Alur

Sal Ammoniac

Stilbite

Stilpnomelane

Sulphur

Vivianite

Mollastonite

Konotlite

Zircon

larandite

Eps.mite

Tyreo r ito

lleghonyite Fluorite

Dyrolusite

mnhiboles

Ganophyllite

Promitation

Glauconhane

Garnet

QUEST'E

mint estite

Cold

Thalcedony

Aratite

Greenockite

Thodochrosite

pophyllite Guadalcazarite

Futile

thregotite, 1 75 Gyrolite

Senarmontite

grsenopymits Hausmannita

Siderits

Azurite

Hydromagnesite Sphene

Barite

Jarosite Stibinferrite, 1873

Epmentite

\*Rempite, 1924 Stibnite

Pornite

Lawsonite Stilpnorelane

Preunite

Magnesi+e

Tephroite

Cassiterite

Malachite

Tiemannite

Chalconymite

Valentini+e

Chromite

"ercury

Zoisite

Chrysocolla

Metadinnahar

Cinnabar

Philinita

Deweylite

Psilomelane

Dolcmite

Pyrite

Service of

-- nitenies

Tremolite

nsancrymita

Talcita

Chromite

Entakeite

Ilmenite

Magnetite

Molanterice

'eneghiriti

Stannijo

Tircon

### יד די די די די

Alunito	Copper	Molanterite	Sulphur
lunogen	Covellite	Mesolito	Talc
mnhiboles	Cristobalite	Molybderite	Tellurium
Anthophyllite	Cuprite	Magyagite	Tenori+e
nalsite	Ferrimolybdite	Matrolite	Tetrahedrite
nhydrito	Galena	Clivine	Tourmaline
rgentite	Garret	Pickeringite	Tridymite
ersenopyrite	Cold	Proustite	Ulexite
zurite	Goslarite	Psilomelane	Vivianite
Darite	Greenockite	Pyrargyrite	Voltaite
Bechilite	Halotrichite	Pyrite	Zaratite
Bornite	Hematite	Pyromorphite	Zirc
Calcite	Messite	Pyroxenes	Zircon
Cerargyrite	Ilsemannite	Hedenbergite	
Cerussite	Ilvaite	Pyrrhotite	
Chabazite	Iridosmine	Quartz	
Chalcanthite	Kaolinite	Shodonite	
Chalcocite	Lepidocrocite	Scheelite	
Chalcopyrite	Limonite	Serpentine	
Chlorites	Maghemite	Silver	
Penninite	Magnetite	Sphalerite	

Chromite Manganite Stephanite

mphi ol - ol~ enite

Tremplite "uscovins

Fratite "atmolite

rsenonymite if edmontite

Teidellite Dyrrhotite

Eismuth Quariz

Chalonoite Scheelite

Chalonpyrite Scanndite

Chlorites Sementine

Chicrite Embalanice

Chromite Stibnite

Comper Stromeyerite

Corundum Talo

Covellite Tetrahedrite

Ferrimolybdife collectonits

Jalena

Gold

Hematite

Jameschite

Magnetite

Marigosite

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### Y. . . . . Y.

Amphicoles Cristalalite had suresite

Actinolite Currite hodonite

Hornblende Epidote Serpentine

Neparite Enythrite Chaltite

ragonite Fayalite Scholerite

rsenocyrite Galena Spinel

Axinite Carnet Sulphur

Azurite Gold Talc

Gypsum

Barite

Tetradymite

Hessite

Borax Iddingsite Tetrahedrite

Bornite Mercury Vesuvianite

Calaverite Volybdenite Water-Ice

Cas-iterite Chal Wollastonite

Chalcocite Croiment Zaratite

Chalcopyrite Petrite Zircon

Chlorites Psilomelane

Perninite Eyroxenes

Chloritoid Hypersthene

Chromite Pyrrhotits

Cirnahar Quartz

Copper Chalcedony

Covellite Realgar



### Ci , Junio

ragonite

Chromite

Epsomite

Cypsum

...arcasite

Metacinnabar

#### 9 C. J. D. L. Y

denigratite Hematite Pumpellyite

Alunite Hisingerite Pyrite

Alunogen Hydromagnesite Pyrolusite

mphiboles Ilvaite Pyroxenes

Tremolite Kaclinite Acmite-Aegirite

Glaucophane Lawsonite Jadeite

Rieheckite Magnesite Guartz

ragonite Margarite Chalcedony

Azurite Mascagnite Gealgar

Boussingaultite Molanterite Rhodochrosite

Cassiterite Mercury Sphene

Cerussite Metacinnabar Stilbite

Chalcopyrite Montroydite Sulphur

Chromite Mapalite Tiemannite

Cinnabar Natrolite Tridymite

Clinozoisite Cpal Tschermigite

\*Curtisite, 1°30 Crpiment Voltaite

Epidote Pectolite Zoisite

Epsomite Pontahydrite

Garnet Pickeringite

Garnet Pickeringite

Graphite Potash Alum

Halotrichite Psilomelane

Pementite

Braunite

Chromite

Cinnabar

arnet

Gypsum

Housmannite

Hydromagnesite

Inesite

Magnesite

Psilomelane

Pyrolusite

Rhedochrosite



# SUTTER COUNTY

None listed

. . .

#### TELL CHITY

Aragonite

Chalcopyrite

Chlorites

Penninite

Chromite

Copper

Cristobalite

Galena

Garnet

Cpal

Pectclite

Sassolite

Wollastonite



# TE MITY COUNTY

Amphiboles	Copiapite	Morenosite	Sphene
Anthophyllite	Copper	Muscovite	Stibnite
Mephrite	Cuprite	Magyagite	Sylvanite
Tremolite	Diamond	Orpiment	Szomolnokite
nalcite	Epidote	Petzite	Talc
Arsenclite	Ferrimolybdite	Pisanite	Wollastonite
Arsenopyrite	Fibroferrite	Platiniridium	Zircon
.zurite	Galena	Platinum	
Parite	Garnet	Psilomelane	
Rementite	Goslarite	Pumpellyite	
Reryl	Halotrichite	Pyroxenes	
Bieberite	Hausmannite	Hypersthene	
Bornite	Iddingsite	Jadeite	
Praumite	Inesite	Pyrrhotite	
Casserite	Iridosmine	Realgar	
Chalcanthite	Iron	Dhodochrosite	
Chalcocite	Limonite	Rhedonite	
Chalcopyrite	Massicot	Romerite	
Chromite	Melanterite	Scheelite	
Cinnabar	Mercury	Serpentine	
Claudetite	Molybdenite	Sphalerite	



#### YELLOS THANK

llanite

Galena

Smithsenite

Amphiboles

Garnet

Soda Niter

Fornblende

Gehlenite

Sphalerite

Gold

Spinel

Mechrite

Argentian

Stibnite

Tremolite

Graphite

Stilbite

Riebeckite

Gypsum

Tourmaline

Andalusite

Jefferisite

Vesuvianite

Annabergite

Limonite

Wolframite

Aragonite

Linarite

Wollastonite

Arsenopyrite

Zoisite

Axinite

Magnesite

zurite

Minium

Barite

Molybdenite

Bornite

Cpa1

Calcite

Powellite

Cerussite

Psilomelane

Chalcopyrite

Pyrargyrite

Chromite

Pyromorphite

Chrysocolla

Pyrrhotite

Copper

Quartz

Cordierite

Chalcedony

Epidote

Rhodonite

Feldspars

Scapolite

Oligoclase

Scheelite

Flucrite

Serpentine

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## T'CLULTE COUNTY

Allanite Ferrimolybdite Tetramedrite

Altaite Galena lin

Amphiboles Carnet Tournaline

Tremolite Gold Tridymite

Riebeckite Graphite

Anauxite Messite

Ankerite Iridosmine

Magonite Kyanita

Argentite Magnesite

Arsenopyrite Malachite

Azurite Marcisite

Bementite Varinosite

Berthierite Molybdenite

Beryl Petzite

Bornite Ditticite

Calaverite Psilomelane

Calcite Pyrite

Chalcocite Pyrrhotite

Chalcopyrite Ehodocarosite

Chromite Rhodonite

Coloradoite Scheelite

Covellite Scorodite

Cristobalite Sillimanite

Epidote Sphalerite

Erythrite Sylvanite

Feldsmars Tellurium

Microcline Tetradymite

s. .c. .

r e j

mber

analcite

zurite

Poussingsultite

Chalconymite

Colemanite

Cuprite

Galena

Garnet

Gypsun

Howlite

Hydroboracite

Varcasite

.desolite

"illsrite

Molybdenite

Controrillonite

"uscovite

Matrolite

Perflandite

Pyrrhotite

Sulphur

#### YOUR ROUTHY

.rar otite

Cinnabar

Fluorite

Marcasite

Metacinnabar

Sulphur

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ų.

#### YUB. DUNITY

Amphiboles

Tremolite

arsenopyrite

Chalcopyrite

Chlorites

Penninite

Chromite

Cuprite

Ferrimolybdite

Garnet

Molybdenite

Pilinite

Rhodonite

Scheelite

Svlvanite

Talc

Vivianite

Zircon

JUN 2

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